

REMARKS

Claims 1, 4, 23 and 24 are being examined and have been rejected.

Rejection under 37 U.S.C. §112, ¶ 2

Claim 23 was rejected under Title 35, section 112, paragraph 2, as being indefinite for failing to recite that SEQ ID NO: 6 is an amino acid sequence. Applicants believe that the sequence listing clearly identifies this sequence as an amino acid sequence but have amended claim 23 to further identify SEQ ID NO: 6 as an amino acid sequence.

Rejection under 37 U.S.C. §112, ¶ 1

Claims 1 and 23 were rejected under Title 35, section 112, paragraph 1, as failing to meet the written description requirement in that both claims recited a polypeptide having an amino acid sequence at least 95% identical to the sequence of SEQ ID NO: 6 and in terms of functional limitations although the specification does not disclose any particular polypeptide having 95% identity to SEQ ID NO: 6. In response, Applicants have amended claims 1 and 23 to recite a polypeptide comprising the sequence of SEQ ID NO: 6. Applicants believe that this amendment overcomes this ground of rejection.

Claims 1 and 23 were rejected under Title 35, section 112, paragraph 1, as failing to meet the enablement requirement in that both claims recited a polypeptide having an amino acid sequence at least 95% identical to the sequence of SEQ ID NO: 6 and in terms of functional limitations although the specification does not disclose any particular polypeptide having 95% identity to SEQ ID NO: 6. In response, Applicants have amended claims 1 and 23 to recite a polypeptide comprising the sequence of SEQ ID NO: 6. Applicants believe that this amendment overcomes this ground of rejection.

Claims 4 and 24 were rejected under Title 35, section 112, paragraph 1, as failing to meet the enablement requirement in that both claims recited a polypeptide having an amino acid sequence at least 95% identical to the sequence of SEQ ID NO: 6 and in terms of functional limitations although the specification does not disclose any particular polypeptide having 95% identity to SEQ ID NO: 6 and purportedly only shows utility against a particular strain of pneumococcal organism (i.e., strain SJ2).

Initially, Applicants do not comprehend the Examiner's arguments regarding 95% identity in that neither claim 4 nor claim 24 recites "95%" identity but, in fact, both claims recite the sequence of SEQ ID NO: 6 and not a percent identity. Applicants have canceled claim 24.

In addition, Applicants note that more is shown in the specification than has been stated by the Examiner. Figure 3 shows reactivity of a recombinant protein with antisera raised against a large number of different pneumococcal strains while Figure 4 shows that results are similar for Sp130 and Sp128 (SEQ ID NO: 6). Applicants also refer the Examiner to the descriptions of these figures as set forth on page 5 of the application.

In addition, Figure 2 (described in the specification at page 5, lines 1 to 9) shows that for the similar Sp130 protein (SEQ ID NO: 8) passive immunization was able to protect against challenge with a heterologous strain while Figure 4 shows the results of a Western blot using patient antisera with both Sp130 and Sp128, which give a similar immunologically reactive pattern. Thus, the proteins disclosed herein are similar and react with antisera raised against a large range of pneumococcal strains and serotypes.

Applicants believe that this showing in the application supports the recitation in claim 4.

Claim 4 was rejected under Title 35, section 112, paragraph 1, as not being fully enabled by the specification. It was contended that these claims lack support for eliciting

an immune response in any kind of animal. In response, Applicants have amended claim 4 to replace the term "animal" with "mammal." Applicants believe that this amendment overcomes the rejection.

Amended claim 4 is now an independent claim and recites a vaccine comprising a polypeptide with the amino acid sequence of SEQ ID NO: 6.

Claim 1 was rejected as adding new matter in that it recites immunogenic composition. In response, Applicants note that the application discloses vaccine compositions (at page 20, lines 3 to 6), which are inherently immunogenic, and at page 10, lines 15 to 18, where it is stated that the polypeptides of the invention may be part of a composition.

Claim 23 was rejected under Title 35, section 112, paragraph 1, as failing to meet the enablement requirement in that it recited a polypeptide having an amino acid sequence at least 95% identical to the sequence of SEQ ID NO: 6. This claim has been amended to recite the sequence of SEQ ID NO: 6 without any reference to functional limitations. Applicants believe that this amendment overcomes this ground of rejection.

Rejection under 37 U.S.C. §112, ¶ 2

Claim 1 was rejected under Title 35, section 112, paragraph 2, as indefinite. In response, Applicants have amended the claim to recite that the polypeptide is present in an amount to have the indicated effect.

Claim 4 was rejected under Title 35, section 112, paragraph 2, as indefinite. In response, Applicants have amended the claim to recite that the polypeptide is present in an amount to have the indicated effect.

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Claim 23 was rejected under Title 35, section 112, paragraph 2, as vague and indefinite for recitation of "binds to antibodies...." In response, Applicants have amended the claim to recite that the polypeptide per se with no functional limitation.

Claims 4 and 24 were also rejected for similar reasons as being dependent from claims 1 and 23, respectively. In response, Applicants note that claim 24 has been canceled and that claim 4 is an independent claim and did not dependent from claim 1.

Rejection Under 35 U.S.C. §102

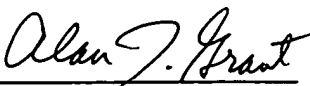
Claims 1, 4, 23 and 24 were rejected under Title 35, section 102(b) as anticipated by Kunsch et al (WO 98/18930). In response, these claims were amended to recite the sequence of SEQ ID NO: 6 in place of 95% identity. Thus, this reference is overcome.

The Commissioner is authorized to charge payment of any additional filing fees required under 37 CFR 1.16 associated with this communication or credit any overpayment to Deposit Account No. 03-0678.

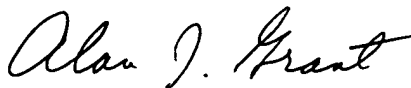
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